

A RESOLUTION BY

01-R-0186

TRANSPORTATION COMMITTEE

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE AMENDMENT #1 FC-7041-98, ENVIRONMENTAL IMPACT STATEMENT (EIS) WITH KIMLEY-HORN AND ASSOCIATES, INC., FOR THE DEPARTMENT OF AVIATION AT HARTSFIELD ATLANTA INTERNATIONAL AIRPORT. TO EXTEND THE CONTRACT TERM AND ADD ADDITIONAL FUNDING IN AN AMOUNT OF TWO MILLION TWO HUNDRED FIFTY THOUSAND DOLLARS, AND SHALL BE CHARGED TO AND PAID FROM FUND, ACCOUNT AND CENTER NUMBER: 2H21 524001 R21001.

WHEREAS, the City of Atlanta did award FC-7041-98, Environmental Impact Statement (EIS), to Kimley-Horn and Associates, Inc. on behalf of the Department of Aviation; and

WHEREAS, the contract term for completion of the Environmental Impact Statement project has an effective completion term of two (2) years, and terminates in March, 2001, and

WHEREAS, the anticipated project completion date contingent upon the Federal EIS approval process is July 2001, the additional work will require funding in an amount of Two Million Two Hundred Fifty Thousand Dollars,

WHEREAS, it has been determined that it is desirable and in the best interest of the City of Atlanta and the Airport for Kimley-Horn and Associates, Inc. to be responsible to complete the required work.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF ATLANTA, GEORGIA, that the Mayor be and is hereby authorized to execute this Amendment Agreement #1 with, Kimley-Horn and Associates, Inc. on behalf of the Department of Aviation, in an amount of Two Million Two Hundred Fifty Thousand Dollars for completion of work; all contracted work shall be charged to and paid from Fund Account and Center number 2H21 524001 R21001.

BE IT FURTHER RESOLVED, that the Director of the Bureau of Purchasing and Real Estate be and is hereby directed to prepare an appropriate amendment agreement for execution by the Mayor, to be approved by the City Attorney as to form.

BE IT FURTHER RESOLVED, that this agreement shall not become binding on the City and the City shall incur no liability upon same until such contract has been executed by the Mayor and delivered to the contracting party.

BE IT FINALLY RESOLVED, that all contracted work shall be charged to and paid from Fund, Account and Center Number: 2H21 524001 R21001.

(BPRE-crc/01/29/01)

JUSTIFICATION FOR EXTENDING AND ADDING FUNDS TO KIMLEY-HORN EIS CONTRACT

Extension of Contract

The contract's effective date was March 24, 1999 and was scheduled to continue for two years, terminating in March of 2001, with the option to extend. Kimley-Horn's work is not anticipated to be completed until mid-July of 2001. This completion date is contingent upon the federal EIS approval process. It is not possible to complete the work prior to the end of March 2001. Thus, an extension is needed.

Adding Funds to Contract

Prior to receiving a workscope and cost estimate for Phase 1B and 2, DOA budgeted \$3,000,000. These two phases and their budget were for development of the baseline (Phase 1B) and the development and analysis of alternatives, as well as to wrap up the EIS (Phase 2). The FAA-approved workscope and cost estimate submitted later by the team exceeded the \$3,000,000.

The team has been submitting invoices that will have them very shortly exceed the previously authorized amount. There are three primary reasons for this:

1. The current authorized amount was not based on the subsequently FAA-approved work scope. The scope, and related cost, to adequately investigate and document potential environmental impacts exceeded the originally approved amount. A primary component driving this is air quality analysis. Given that the Atlanta area is nonattainment for ozone, adequately addressing this issue to EPA's and other state and federal agencies' satisfaction is of paramount concern. However, many other ground transportation and airfield/airspace modeling tasks are required to be performed in support of the air quality work, which increase costs.
2. Some tasks approved in the original FAA scope have had their scope expanded due to unanticipated conditions found in the field. An example is environmental due diligence audits, where the EIS team has been required to perform many more than they had originally assumed in their budget.
3. EPA requested that the FAA perform additional analysis that was not originally foreseen. This stems from an EPA concern focused on cumulative impacts. The FAA complied with this request.

The vast majority of the analysis for Phase 2 has been completed. The team completed the draft EIS (DEIS) and the FAA released it to the public on December 29.

The remaining work to complete in Phase 2 is:

- Conduct public hearing/information workshop(s)
- Perform all necessary coordination to answer comments
- If additional analysis is required to address comments, perform analysis
- Compile and release FEIS
- Prepare FAA's record of decision (ROD)
- Close project out

An additional amount of \$2.25 million is needed to fully complete the EIS. This includes up to \$340,000 in possible contingencies. The additional funding needed consists of three components:

Amount Needed to Complete "Basic" EIS

Through October, 2000, they have invoiced for approximately the full authorized amount. We are anticipating the ROD in July 2001. Currently, we do not foresee any problems predicated on environmental grounds based on the team's analysis or based on any comments from the public, groups, or agencies.

The amount anticipated needed to complete the "basic" EIS is \$1.33 million.

Contingency Analysis Arising from Public Comments

When the public reviews the document, the possibility always looms that someone may state a legitimate concern on environmental grounds that requires the concern to be analyzed. This has certainly happened in other EISs. The originally authorized amount did not include any contingency amount for this purpose. The following table lists possible tasks that may, or may not, be needed to be performed.

Contingency Task	Estimated Fee and Expenses
Trip to FAA Headquarters for Coordination	\$10,000
Additional Air Quality Analysis	\$60,000
Additional Environmental Justice Analysis	\$40,000
Additional State/Federal Coordination Meetings	\$30,000
Printing Additional DEIS/FEIS Copies	\$15,000
Additional Noise Analysis	\$50,000
Additional Simulation Analysis	\$60,000
Historic Resource Coordination	\$75,000
Total Contingency	\$340,000

We are assuming that up to \$340,000 may be needed to cover this type of additional work.

EPA Requested Analysis

EPA made a request for additional analysis, which the FAA granted. The No-Action alternative in 2005 and 2010 assumes the commuter runway is operational. However, because the commuter runway was approved in 1994 and no heavy construction has occurred to date, EPA was concerned about assessing the impact of going from a four-runway configuration to a five air carrier runway airfield.

To do this requires that a four-runway analysis be performed for 2005 and 2010. The additional work will focus on noise and air quality, as well as incorporating the analysis in the DEIS and EPA coordination. The cost estimate is \$552,000 for this four-runway analysis. The funding for this additional analysis is not included in the originally authorized amount.

Additional Funds Requested Summary

I propose adding the following the funds to their contract:

\$1,330,000	To complete basic EIS
\$340,000	For any contingency analysis that could arise from public comments
<u>\$552,000</u>	For the four-runway analysis requested by EPA
\$2,222,000	Total additional funds

For budgeting purposes, say \$2.25 million.

Kimley-Horn and Associates, Inc.
9,000-foot 5th Runway EIS
Hartsfield Atlanta International Airport
Estimated Charges
Without 4-Runway Alternative Analysis or Need to Complete
Substantial Additional Analyses

1/4/01

	Fee Authorized	Additional Estimated Charges to ROD
PHASE 1A		
Lump Sum Labor & Expenses	\$258,031.00	
Other Expenses	\$33,000.00	
PHASE 1B		
Lump Sum Expenses	\$25,000.00	
Labor	\$312,580.00	
Other Expenses	\$987,992.00	
PHASE 2		
Lump Sum Expenses	\$66,000.00	
Labor	\$643,694.60	
Other Expenses	<u>\$2,035,613.00</u>	
Additional Printing		
PDEPS/DEIS/FEIS		\$70,000.00
Additional Workshop Boards		\$8,000.00
Preparation of EDDA's for additional acquisition parcels		<u>\$190,000.00</u>
Total		<u>\$4,629,911.00</u>

Possible Additional Tasks Between DEIS-ROD

1. Trip to Washington, D.C. to meet with FAA headquarters staff - \$10,000
2. Additional Air Quality analysis - \$30,000-60,000
3. Additional Environmental Justice analysis - \$20,000-40,000
4. Additional review/meetings to respond to agency/public comments - \$20,000-30,000
5. Additional copies of DEIS/FEIS - \$15,000
6. Additional noise analysis - \$30,000-50,000
7. Additional simulation analysis - \$40,000-60,000
8. Historic resource coordination - 4(f)/303(c) evaluations for properties if SHPO requires noise to be considered an adverse effect, as well as a Memorandum of Agreement - \$50,000-75,000

Scope of Services (SOS)

Hartsfield Atlanta International Airport

4-Runway and No Build Analysis

Environmental Impact Statement for

Extension of 5th Runway and Associated Projects

Task 3.1 Coordination between Consultant and Agencies

Task 3.1.1 Coordination-External

Coordination will be required with agencies including FAA, EPA, DOA, and EPD throughout this supplemental effort. Given the fast-track nature of this supplemental effort, a high degree of coordination will occur. Preparation for, attendance at, and summarization of up to eight meetings is included in this task.

Assumptions

- None

Deliverables

- Meeting summaries

Task 3.1.2 Coordination- Internal

The Consultant will undertake three separate but parallel technical analyses under this supplemental scope. These analyses will be coordinated closely to provide valid, realistic results. Included is also the iterative process of reviewing and revising the output from each model to suit the requirements of the other models (including conversion of SIMMOD output for noise and air quality modeling, and noise modeling's feedback into portions of air quality). This is particularly important because of the anticipated requirement to examine constrained schedules and activity levels, and the project's fast-track nature.

Assumptions

- None

Deliverables

- None

Task 3.2 Air Quality

Task 3.2.1 Emissions Inventory Analysis

Task 3.2.1.1 Aircraft Emissions

The portion of the emissions inventory dealing with aircraft will be based on individual aircraft, their engine types, and their time in four specific operating modes (approach, landing, takeoff, taxi/delay).

Assumptions

- Runway utilization, aircraft delay, and taxi patterns (taxi-in and taxi-out) for the 4-Runway Alternative will be determined in consultation with the SIMMOD and noise group staff and will be based on typical aircraft routings for the airport.

Deliverables

- None

Task 3.2.1.2 Parking Lots and Roadway Emissions

The emissions due to other mobile sources, namely parking lots (including garages) and roadways, will be estimated for roads and parking facilities located both on airport property and those located within the immediate vicinity of the airport. The analysis will focus on the change in Vehicle Miles Traveled (VMT).

The inventory of emissions due to parking lots and parking garages will consider the annual number of vehicles traveling into and exiting from the lots, the average speed of the vehicles in the lot, their average idle time, and the average distance traveled in the lot.

The inventory of emissions due to roadways will consider the annual number of vehicles traveling on each roadway segment, the speed limit posted for the roadway segment, and the length of the roadway segment.

Assumptions

- Emissions from parking lots and roadways would be determined based on data relating to the annual traffic data, idle time, etc. provided by Wilbur Smith Associates.

Deliverables

- None

Task 3.2.1.3 Stationary Source Emissions

Emissions due to stationary sources such as power/heating plants, incinerators, fuel storage tanks, solvent degreasers, and surface coating will be inventoried. Analysis of these sources would consider the annual amount and type of fuel used or stored, and the annual amount of paint and solvent degreasers used.

Emissions due to the operation of training fire facilities will be evaluated, if needed. This analysis considers the type of fuel burned, and the annual amount of fuel used for the fires.

Emissions for stationary sources will be estimated based on prior emissions inventories for these sources and available inventories as prepared under Title V of the Clean Air Act.

Assumptions

- The data collected as part of the No-Action Alternative will be reflected in the 4-Runway Alternative analysis.

Deliverables

- None

Task 3.2.2 Dispersion Modeling Analysis

Task 3.2.2.1 Review & Process SIMMOD Results

Prior to quantifying the emissions inventory analysis for the 4-Runway Alternative, the Consultant will review and process the SIMMOD data files. Included in this effort will be review of the number of operations, aircraft categories, airfield configurations, taxi distances, general gate areas, runway utilization, and arrival/departure delay values. Considerable effort is necessary to process the SIMMOD data for incorporation into the emission inventory. The air quality staff will coordinate all efforts with the SIMMOD staff to ensure effective processing and data accuracy.

Assumptions

- Coordination with the SIMMOD staff will be expected to ensure delay number are reasonable. Fleet mix and scheduling will conform to the limited runway configuration of the 4-Runway Alternative.

Deliverables

- The results of the fleet mix and operational delay numbers will be included in the draft air quality technical appendix.

Task 3.2.2.2 Review & Process INM Fleet Mix & Runway Use

Prior to determining the air quality impacts associated with the 4-Runway Alternative, specific coordination with fleet mix and runway assignments must conform with the noise analysis. Efforts included in this task are to confirm and process:

- Forecast activity levels and fleet mix
- Runway utilization

This task would include review for consistency of the initial aviation planning assumptions and findings associated with the forecast development and noise analysis.

Assumptions

- This analysis will focus on the peak year operational conditions forecast for ATL within the current planning horizon (Peak Month Average Day (PMAD) and peak hour conditions).

The focus of this effort will be to ensure consistency between the data used for simulation, noise and air quality assessments.

Deliverables

- A table will be produced comparing the aircraft operational data for the simulation, noise and air quality analyses.

Task 3.2.2.3 Refined Dispersion Analysis

This task addresses USEPA's request to evaluate dispersion modeling concentrations from the future 4-Runway configuration. As a result, the future 2005 and 2010 forecast years will be evaluated for ambient air concentrations from dispersion modeling under the assumption that no fifth runway is operational at ATL.

The air quality analysis will be conducted in accordance with the National Environmental Protection Act (NEPA), the 1990 Clean Air Act Amendments, FAA Order 5050.4A, *Airport Environmental Handbook*, as directed by FAA Order 1050.1D — *Policies and Procedures for Considering Environmental Impacts*, and FAA's *Air Quality Procedures for Civilian Airports & Air Force Bases*.

Assumptions

- Localized air quality impacts at traffic intersections will not need to be evaluated within the context of a future 4-Runway Alternative. However, surface transportation emission sources as they relate to ATL's parking, ingress/egress roadways, and airport operations will be included in the supplemental dispersion modeling analysis.

Deliverables

- None

Task 3.2.3 Evaluation of Potential Cumulative Impacts

This task provides the efforts to allow for a limited air quality analysis of potential future changes at ATL for which FAA approval is not being sought. This task does not provide for a rigorous analysis, but would include a primarily qualitative assessment of future potential air quality impacts. The analysis will focus on preparation of an airport emissions inventory based on general assumptions about the operation of the future facilities. Where possible, the detailed data developed in the previous tasks will be incorporated. Focus will be made on inventory comparisons between the 4-Runway Alternative, No-Action Alternative, and Alternatives 1 and 2.

Assumptions

- The analysis will focus on some future airport facilities beyond that proposed for approval. Operational assumptions would be more qualitative, and where possible the detailed information on the airport operational characteristics would be incorporated from the previous tasks.

Deliverables

- A future out-year airport emissions inventory estimating the potential cumulative emissions associated with potential airport development.

Task 3.2.4 General Conformity Analysis

The Consultant will prepare a General Conformity determination in accordance with the requirements of the Clean Air Act to determine whether the proposed airport development meets the goals of the State Implementation Plan (SIP). Particular attention will be made between the 4-Runway and No-Action Alternatives, the 4-Runway and Alternatives 1 and 2, and the No-Action and Alternatives 1 and 2.

The results of the air quality analysis will be compared to the Georgia SIP and to the associated 'de minimis' levels to determine conformity, as described in the Phase 2 Scope of Services, Task 2.1.10. The conformity determination analysis, review, and notification process will be determined in consultation with the appropriate air quality agencies

Assumptions

- None

Deliverables

- None

Task 3.3 Noise Modeling and Analysis**3.3.1 Translate SIMMOD Output Data to INM Fleet**

This task provides for the effort necessary to review and analyze the SIMMOD output for the 2005 and 2010 No-Build Alternative at ATL. The SIMMOD output will be evaluated to determine runway and fix assignments, day-night splits, and fleet mix for each future year as input into the INM. The conversion of the SIMMOD output fleet to an INM fleet mix will be undertaken as early as possible to facilitate input into the Air Quality analysis.

Assumptions

- SIMMOD output provided in database format as previously done.
- Specific information relating to any constrained forecast operational levels for the average annual day in 2005 and 2010

Deliverables

- Detailed INM fleet mix for input into Air Quality and INM analyses.

Task 3.3.2 Develop INM Input for Two Cases

For the No Build Alternative and the 4-Runway Alternative, the results of the analysis of the SIMMOD output data (as described under Task 3.1.2) will be incorporated into a pre-processing spreadsheet format. The spreadsheet-processing model will be based on those developed for the previously completed ATL noise analysis. The spreadsheet model will write out the resulting data in a format appropriate for input into the INM. This effort will be conducted for the 2005 and 2010 conditions.

Assumptions

- None.

Deliverables

- Operational input files in INM format for the 2005 and 2010 4-Runway Alternative.

Task 3.3.3 EPA No Build and 4-Runway Noise – Future Conditions

Data collected from Task 3.3.2 will be used in the INM to model the No Build Alternative and the 4-Runway Alternative noise for the future years of 2005 and 2010. Contours of 65, 70, and 75 DNL will be prepared.

Assumptions

- None

Deliverables

- Future 4-Runway DNL noise contours for the years 2005 and 2010 in electronic format (.DXF file) for subsequent development of presentation graphics and input into subsequent noise impacts analysis tasks.

Task 3.3.4 Future Grid Point Analysis

A grid point analysis for the No Build Alternative and the 4-Runway Alternative will be developed for each of the future years of analysis. The analysis will be based on the grid point locations used for the previously completed noise analysis and will report the same supplemental metrics.

Assumptions

- The grid analysis will be limited to the grid points and noise metrics analyzed in earlier phases of this project.
- The grid analysis will be developed for each future year (2005 and 2010) for the 4-Runway Alternative.

Deliverables

- 2005 and 2010 noise statistics for the 4-Runway Alternative in 2005 and 2010. The output will be provided in electronic format (spreadsheet files) for the identified grid areas and location points for the metrics used in the previous analysis.

Task 3.3.5 FICON Noise Analysis

As recommended in the report of the Federal Interagency Committee on Noise (FICON), a noise analysis will be conducted to determine the areas (if any) within the 65 DNL contour that would experience an increase in noise of 1.5 dB DNL or greater as a result of the Project for each of the future years (2005 and 2010) for the No Build Alternative and the 4-Runway Alternative. Similarly, an additional analysis will be conducted to identify any areas (if any) between the 65 and 60 DNL contours that would experience an increase in noise of 3.0 dB DNL or greater as a result of the No Build Alternative and the 4-Runway Alternative for 2005 and 2010. Noise sensitive sites will be evaluated as described in Task 3.4.

Assumptions

- The task provides for FICON analysis comparisons between the No Build Alternative and Build Alternatives and the 4-Runway and Build Alternatives only.

Deliverables

- A series of noise contour comparisons for each future year (2005 and 2010) that identifies the areas of FICON significant noise increases. The comparisons will compare the No Build Alternative and Build Alternative and the 4-Runway Alternative and Build Alternatives for 2005 and 2010.

Task 3.4 Evaluation of Noise Sensitive Sites and Compatible Land Uses

The impact of aircraft noise related to noise sensitive sites will be assessed. To determine the impacts to both noise sensitive sites and compatible land uses, the 65 DNL, 70 DNL, and 75 DNL contours based on the 4-Runway configuration will be overlaid with the GIS data created during Phase 2.

Assumptions

- None

Deliverables

- None

Task 3.5 SIMMOD Simulation and Analysis

Task 3.5.1 Develop Constrained Future Flight schedules

It is anticipated that the hourly activity pattern of the future flight schedules (2005 and 2010) developed based on the EIS forecast will result in excessive delays under a 4-Runway Alternative. Therefore, the hourly distribution of arrivals and departures in the future flight schedules for the 4-Runway Alternative will be modified based on reasonable assumptions about how the airlines might respond to a capacity constraint by adding operations in non-peak hours. In addition to flattening the peaks of the flight schedules, activity reductions may be needed to assure realistic delay levels. Activity reductions will be accomplished by canceling flights in IFR conditions and, if needed, by reducing the number of scheduled flights in VFR. The outcome of these modifications (peak flattening and flight reductions) will be "constrained"

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future flight schedules for the forecast years of 2005 and 2010. The constrained flight schedules will be used to generate EVENTS files for the simulations of the 4-Runway airfield.

Proposed modifications to the flight schedules will be reviewed with DOA and FAA prior to initiating the simulation analysis. Revisions will be made within one week of receipt of comments.

Assumptions

- None

Deliverables

- Graphs of hourly distributions of scheduled arrivals and departures and SIMMOD EVENTS files for 2005 and 2010.

Task 3.5.2 Perform Simulation Analysis

The simulation analysis of the existing, 4-Runway airfield will be performed in this task. This analysis will include modifying existing AIRSPACE and GROUND databases, running the SIMMOD model, and tabulating the results.

The No-Action (6,000 ft. fifth runway) SIMMOD databases will be modified to generate AIRSPACE and GROUND databases that reflect the existing 4-Runway airfield operation. VFR and IFR West Flow AIRSPACE and GROUND databases will be generated. A total of four Alternatives will be simulated using the modified EVENTS to measure the performance of the existing 4-Runway airfield:

- West Flow VFR 2005
- West Flow IFR 2005
- West Flow VFR 2010
- West Flow IFR 2010

The results of the simulations will be summarized in table format and will be reviewed with FAA and DOA. Revisions will be made in one week upon receipt of comments.

Assumptions

- None

Deliverables

- Tables summarizing the simulation results.

Task 3.5.3 Simulation Revisions of No-Action Alternative

It is estimated that the No-Action Alternative simulations will need to be revised to be consistent with assumptions about realistic delay levels and consequently with the profile and volume of operations under the existing 4-Runway airfield.

To reduce the No-Action delays to be consistent with the level of realistic delay defined for the 4-Runway airfield, the future No-Action flight schedules may need to be modified consistent

with the approach defined in Task 3.4.2. Modifications will consist of reducing peak hour activity and increasing non-peak hour activity, thus flattening the peaks of the activity pattern. Flights may also be removed by canceling flights in IFR conditions and, if needed, by reducing the number of scheduled flights in VFR.

As a result of these changes, the 2010 and 2005 SIMMOD EVENTS files will be modified accordingly. The Baseline simulations for VFR and IFR West Flow will also be re-run using the revised EVENTS for 2005 and 2010. The results of the simulations will be summarized in table format and will be reviewed with FAA and DOA. Revisions will be made in one week upon receipt of comments.

Assumptions

- None

Deliverables

- Graphs of hourly distributions of scheduled arrivals and departures, SIMMOD EVENTS files for 2005 and 2010 and tables summarizing the simulation results.

Task 3.6 Transportation Planning

Task 3.6.1 Re-Allocation of ARC Demand Model Traffic Volumes

This work will involve developing and implementing a peak period traffic re-allocation methodology to re-allocate travel demands consistent with potential temporal re-distribution of activity of the airport to minimize air travel delays. The Consultant will review the weaknesses and benefits of making the re-allocations within the model or as an external post processing of traffic demand.

Assumptions

- Temporal distribution of airport activity (trips) for the existing 2005 and 2010 No Build alternatives in addition to the new 2005 and 2010 4-Runway Alternatives will be provided before activity can commence.

Deliverables

- Temporally modified 2005 and 2010 trip tables or traffic demands for the 4-Runway Alternative based on the regional travel demand model.
- Working paper on demographic data for the regional travel demand model and the temporal re-distribution methodology.

Task 3.6.2 Develop Future No-Runway Roadway Networks

The 4-Runway roadway networks will be developed by the Consultant for the study area and coded into the regional travel demand and CORSIM models. The 4-Runway roadway networks will reflect only the existing roadway network and not include committed transportation improvements within the study area as detailed in the most recent ARC TIP regarding the 5th runway.

Assumptions

- None

Deliverables

- 2005 and 2010 4-Runway Alternative roadway networks for the regional travel demand and CORSIM models.

Task 3.6.3 Run Regional Travel Demand and CORSIM Models

The Consultant will run the modified regional travel demand model for the 2005 and 2010 4-Runway Alternative using the appropriate demographics and 4-Runway roadway networks developed in prior tasks. Trip tables and output from the regional travel demand model will be used to run the CORSIM model for the 4-Runway Alternative. The output of the CORSIM model will be formatted for use in the air quality and noise analysis models.

For this task, running the CORSIM model involves a two step process. First, growth rates for each roadway link are calculated from the regional travel demand model. These growth rates are then applied to existing traffic volumes (link and intersection turning movement) to develop 2005 and 2010 traffic volumes. Second, a methodology must be developed for redistributing trips within the study area. This will be accomplished using the original travel demand model.

Assumptions

- Traffic data (link-based speed and volume) will only be supplied for the development of an Emissions Inventory, and not for Intersection Dispersion analysis.

Deliverables

- Working paper on the 2005 and 2010 4-Runway conditions in the study area.
- Traffic data input for air and noise quality analysis models in the same format as provided for the existing conditions analysis completed in Phase 1B.

3.7 4-Runway Water Quality Analysis

The Consultant will identify the design, mitigation measures, and construction controls needed to demonstrate that Georgia water quality standards and Federal, State and local permit requirements can be met for the 4-Runway Alternative. Storm and sanitary sewer design, requirements for additional water supplies or waste treatment capacity, erosion controls to prevent siltation, provisions for containing fuel spills and waste water from aircraft washing, designs to preserve existing drainage or to minimize dredge and fill, and location with regard to an aquifer or sensitive ecological area such as a wetlands area will be identified.

Assumptions

- The task provides modeling of storm water runoff quantity/quality comparisons only between the four runway and the two-build Alternatives.

Deliverables

- HEC-HMS simulation and analysis for the Four-Runway Alternative.

3.8 Phase I EDDAs – 5th Runway Acquisition Areas

Phase I Environmental Due Diligence Audits (EDDAs) will be performed on 98 additional properties located within the acquisition areas for the proposed alternatives, supplementing the 30 EDDAs included in the previously authorized scope of services. The intent of the EDDA is to minimize and manage environmental liabilities associated with acquisition, disposal, or transfers of real property. The EDDA provides a screening tool to avoid possible litigation and cleanup responsibilities associated with the acquisition of property contaminated by hazardous materials or waste.

Deliverable

- Up-to-date hazardous material inventory which would include information regarding environmental compliance.

Task 3.9 Documentation

The Consultant will prepare and include model output for the 4-Runway analysis as a technical appendix in the Draft Environmental Impact Statement (DEIS). Also, the Consultant will prepare impact sections related to the 4-Runway analysis. These sections will be incorporated into the DEIS in the appropriate sections for air, noise, and traffic impacts.

The actual size of the DEIS and its associated appendix volume is twice the size originally estimated. Additional funds will be required to print the DEIS, PFEIS, and FEIS. Also, additional workshops were conducted in July 2000, requiring extensive graphic preparation. While the Workshop and Public Hearing on the DEIS are included in the original Phase 2 scope, additional graphics will need to be prepared to supplement those prepared in July.

Assumptions

- None

Deliverables

- Model output in technical appendix of DEIS.
- Incorporation of air, noise, and traffic impacts into DEIS text.
- Production of the DEIS, PFEIS, and FEIS as described in the Phase 2 scope.

Labor Hours for 4-Runway Analysis
Landrum and Brown

		Landrum and Brown						
Task #	Task Description	Officer (Hours)	Project Director (Hours)	Senior Consultant (Hours)	Consultant (Hours)	Analyst (Hours)	Support (Hours)	Total Labor (Hours)
3.1 Coordination between Consultant and Agencies								
3.1.1	Coordination - External	12	32	32	10	0	16	102
3.1.2	Coordination - Internal	13	44	33	102	35	10	237
	Subtotal Task 3.1	25	76	65	112	35	26	339
3.2 Air Quality								
3.2.1 Emission Inventory Analysis								
3.2.1.1	Aircraft Emissions	0	4	14	29	29	3	79
3.2.1.2	Parking Lots and Roadway Emissions	0	4	15	30	29	4	82
3.2.1.3	Stationary Source Emissions	0	3	14	29	29	3	78
3.2.2 Dispersion Modeling Analysis								
3.2.2.1	Review/Process SIMMOD Results	0	4	8	20	25	5	62
3.2.2.2	Review/Process INM Fleet Mix Results	0	4	8	20	110	5	147
3.2.2.3	Refined Dispersion Analysis	0	4	8	80	100	10	202
3.2.3	Evaluation of Potential Cumulative Impacts	0	7	11	23	14	10	65
3.2.4	General Conformity Analysis	5	11	15	35	16	14	96
	Subtotal Task 3.2	5	41	93	266	352	54	811
3.3 Noise Modeling and Analysis								
3.3.1	Translate SIMMOD Output Data to INM Fleet	0	16	32	0	16	0	64
3.3.2	Develop INM Input for Two Cases	5	7	66	5	12	0	95
3.3.3 Conditions								
3.3.4	Future Grid Point Analysis	0	0	32	0	0	0	32
3.3.5	FICON Noise Analysis	7	19	34	0	10	10	80
	Subtotal Task 3.3	21	57	188	5	38	10	319
3.5 SIMMOD Simulation and Analysis								
3.5.1	Develop Constrained Future Flight Schedules	4	16	12	38	90	0	160
3.5.2	Perform Simulation Analysis	5	15	9	62	110	0	201
3.5.3	Simulation Revisions of Baseline Alternative	9	20	12	102	170	0	313
	Subtotal Task 3.5	18	51	33	202	370	0	674
7.9 Documentation								
	Subtotal Task 7.9	15	51	107	93	164	50	480
	Total	84	276	486	678	959	140	2,823

Labor Hours for 4-Runway Analysis
Wilbur Smith Associates

		Wilbur Smith Associates						
Task #	Task Description	Senior Associate (Hours)	Associate Engineer (Hours)	Senior Engineer (Hours)	Technical Engineer (Hours)	Assistant Engineer (Hours)	Word Processor (Hours)	Total Labor (Hours)
3.6	Transportation Planning							
3.6.1	Re-Allocation of ARC Demand Model Traffic							
3.6.1	Volumes	8	40	40	40	0	0	128
3.6.2	Develop Future No-Runway Networks	4	40	64	80	0	0	188
3.6.3	Run Regional Travel Demand Model and CORSIM Models	0	116	104	88	16	0	324
	Subtotal Task 3.6	12	196	208	208	16	0	640
3.9	Documentation	8	36	64	24	0	32	164
	Subtotal Task 3.9	8	36	64	24	0	32	164
	Total	20	232	272	232	16	32	804

Labor Hours for 4-Runway Analysis
C.E.R.M.

C.E.R.M.										
Task #	Task Description	Director Principal (Hours)	Advisor / Director (Hours)	Consulting Engineer (Hours)	Senior PM (Hours)	Project Manager (Hours)	Senior Engineer (Hours)	Analyst / Technician (Hours)	Computer Analyst (Hours)	Staff Accountant (Hours)
3.7	4-Runway Water Quality Analysis	0	0	3	2	8	40	36	10	2
	Subtotal Task 3.7	0	0	3	2	8	40	36	10	2
3.8	Phase I EDDAs -- 5th Runway Acq. Areas	0	0	0	64	85	428	953	250	26
	Subtotal Task 3.8	0	0	0	64	85	428	953	250	26
	Total	0	0	3	68	93	468	989	260	28

Labor Hours for 4-Runway Analysis
C.E.R.M.

Task #	Task Description	Admin Asst. (Hours)	Secretarial / Clerical (Hours)	Total Labor (Hours)
3.7	4-Runway Water Quality Analysis	8	0	109
	Subtotal Task 3.7	8	0	109
3.8	Phase I EDDAs -- 5th Runway Acq.	400	250	2,456
	Subtotal Task 3.8	400	250	2,456
	Total	408	250	2,565

Labor Hours for 4-Runway Analysis

Summary

		Subconsultants					Total Subconsultants (Hours)	Klinley-Horn (Hours)	Grand Total (Hours)
Task #	Task Description	Landrum & Brown (Hours)	Wilbur Smith (Hours)	C.E.R.M. (Hours)					
3.1 Agencies									
Coordination between Consultant and									
3.1.1	Coordination - External	102	0	0			102	36	138
3.2.1	Coordination - Internal	237	0	0			237	44	281
Subtotal Task 3.1		339	0	0			339	80	419
3.2 Air Quality									
3.2.1	Emission Inventory Analysis	0	0	0			0	0	0
3.2.1.1	Aircraft Emissions	79	0	0			79	2	81
3.2.1.2	Parking Lots and Roadway Emissions	82	0	0			82	5	87
3.2.1.3	Stationary Source Emissions	78	0	0			78	2	80
3.2.2	Dispersion Modeling Analysis								
3.2.2.1	Review/Process SIMA/DO Results	62	0	0			62	8	70
3.2.2.2	Review/Process IIRM Final Mix Results	147	0	0			147	6	155
3.2.2.3	Refined Dispersion Analysis	202	0	0			202	8	210
3.2.3	Evaluation of Potential Cumulative Impacts	65	0	0			65	14	79
3.2.4	General Conformity Analysis	96	0	0			96	11	107
Subtotal Task 3.2		811	0	0			811	58	869
3.3 Noise Modeling and Analysis									
3.3.1	Translate SIMA/DO Output	64	0	0			64	1	65
3.3.2	Develop INM Input for Two Cases	95	0	0			95	3	98
EPA No Build and 4-Runway Noise - Future									
3.3.3	Conditions	48	0	0			48	28	76
3.3.4	Future Grid Point Analysis	32	0	0			32	28	60
3.3.5	FICOM Noise Analysis	80	0	0			80	32	112
Subtotal Task 3.3		319	0	0			319	92	411
Evaluation of Noise Sensitive Sites and									
3.4 Compatible Land Uses									
3.4	Compatible Land Uses	0	0	0			0	18	18
Subtotal Task 3.4		0	0	0			0	18	18
3.5 SIMMOD Simulation and Analysis									
3.5.1	Develop Constrained Future Flight Schedules	160	0	0			160	4	164
3.5.2	Perform Simulation Analysis	201	0	0			201	4	205
3.5.3	Simulation Revisions of Baseline Alternative	313	0	0			313	4	317
Subtotal Task 3.5		674	0	0			674	12	686
3.6 Transportation Planning									
Re-Allocation of ARC Demand Model Traffic									
3.6.1	Volumes	0	128	0			128	34	162
3.6.2 Networks									
3.6.2	Develop Future no-Runway Build Roadway	0	188	0			188	24	212
Run Regional Travel Demand Model and									
3.6.3 CORSIM Models									
3.6.3	Develop Future no-Runway Build Roadway	0	324	0			324	71	395
Subtotal Task 3.6		0	640	0			640	129	769
3.7 4-Runway Water Quality Analysis									
3.7	4-Runway Water Quality Analysis	0	0	109			109	44	153
Subtotal Task 3.7		0	0	109			109	44	153
3.8 Phase I EDDAs - 5th Runway Acq. Areas									
3.8	Phase I EDDAs - 5th Runway Acq. Areas	0	0	2,456			2,456	139	2,595
Subtotal Task 3.8		0	0	2,456			2,456	139	2,595
3.9 Documentation									
3.9	Documentation	480	164	0			644	123	767
Subtotal Task 3.9		480	164	0			644	123	767
Total		2,623	804	2,685			6,112	605	6,717

Labor Cost for 4-Runway Analysis
Landrum and Brown

		Landrum and Brown						
Task #	Task Description	Officer	Project Director	Senior Consultant	Consultant	Analyst	Support	Total Labor (\$)
3.1 Coordination between Consultant and Agencies								
3.1.1	Coordination - External	\$2,280	\$5,280	\$4,320	\$1,100	\$0	\$800	\$13,780
3.1.2	Coordination - Internal	\$2,470	\$7,260	\$4,455	\$11,220	\$2,800	\$500	\$28,705
	Subtotal Task 3.1	\$4,750	\$12,540	\$8,775	\$12,320	\$2,800	\$1,300	\$42,485
3.2 Air Quality								
3.2.1	Emission Inventory Analysis							
3.2.1.1	Aircraft Emissions	\$0	\$660	\$1,890	\$3,190	\$2,320	\$150	\$8,210
3.2.1.2	Parking Lots and Roadway Emissions	\$0	\$660	\$2,025	\$3,300	\$2,320	\$200	\$8,505
3.2.1.3	Stationary Source Emissions	\$0	\$495	\$1,890	\$3,190	\$2,320	\$150	\$8,045
3.2.2	Dispersion Modeling Analysis							
3.2.2.1	Review/Process SIMMOD Results	\$0	\$660	\$1,080	\$2,200	\$2,000	\$250	\$6,190
3.2.2.2	Review/Process INM Fleet Mix	\$0	\$660	\$1,080	\$2,200	\$8,800	\$250	\$12,990
3.2.2.3	Refined Dispersion Analysis	\$0	\$660	\$1,080	\$8,800	\$8,000	\$500	\$19,040
3.2.3	Evaluation of Potential Cumulative Impacts	\$0	\$1,155	\$1,485	\$2,530	\$1,120	\$500	\$6,790
3.2.4	General Conformity Analysis	\$950	\$1,815	\$2,025	\$3,850	\$1,280	\$700	\$10,620
	Subtotal Task 3.2	\$950	\$6,765	\$12,555	\$29,280	\$28,760	\$2,700	\$80,390
3.3 Noise Modeling and Analysis								
3.3.1	Translate SIMMOD Output	\$0	\$2,640	\$4,320	\$0	\$1,280	\$0	\$8,240
3.3.2	Develop INM Input for Two Cases	\$950	\$1,155	\$8,910	\$550	\$960	\$0	\$12,525
	EPA No Build and 4-Runway Noise - Future Conditions	\$1,710	\$2,475	\$3,240	\$0	\$0	\$0	\$7,425
3.3.4	Future Grid Point Analysis	\$0	\$0	\$4,320	\$0	\$0	\$0	\$4,320
3.3.5	FICON Noise Analysis	\$1,330	\$3,135	\$4,590	\$0	\$800	\$500	\$10,355
	Subtotal Task 3.3	\$3,990	\$9,405	\$25,380	\$550	\$7,040	\$500	\$42,865
3.5 SIMMOD Simulation and Analysis								
3.5.1	Develop Constrained Future Flight Schedules	\$760	\$2,640	\$1,620	\$4,180	\$7,200	\$0	\$16,400
3.5.2	Perform Simulation Analysis	\$950	\$2,475	\$1,215	\$6,820	\$8,800	\$0	\$20,260
3.5.3	Simulation Revisions of Baseline Alternative	\$1,710	\$3,300	\$1,620	\$11,220	\$13,600	\$0	\$31,450
	Subtotal Task 3.5	\$3,420	\$8,415	\$4,455	\$22,220	\$29,600	\$0	\$68,110
3.9 Documentation								
		\$2,850	\$8,415	\$14,445	\$10,230	\$13,120	\$2,500	\$51,560
	Subtotal Task 3.9	\$2,850	\$8,415	\$14,445	\$10,230	\$13,120	\$2,500	\$51,560
	Total	\$15,980	\$45,540	\$68,510	\$74,880	\$76,720	\$7,000	\$285,410

Labor Cost for 4-Runway Analysis
Wilbur Smith Associates

		Wilbur Smith Associates						
Task #	Task Description	Senior Associate	Associate Engineer	Senior Engineer	Technical Engineer	Assistant Engineer	Word Processor	Total Labor (\$)
3.6	Transportation Planning							
	Re-Allocation of ARC Demand Model Traffic Volumes	\$1,160	\$5,200	\$4,200	\$3,800	\$0	\$0	\$14,360
3.6.1	Develop Future no-Runway Build Roadway Networks	\$580	\$5,200	\$8,720	\$7,600	\$0	\$0	\$20,100
3.6.2	Run Regional Travel Demand Model and CORSIM Models	\$0	\$15,080	\$10,920	\$8,360	\$1,120	\$0	\$35,480
	Subtotal Task 3.6	\$1,740	\$25,480	\$21,940	\$19,760	\$1,120	\$0	\$69,940
3.9	Documentation	\$1,160	\$4,680	\$8,720	\$2,280	\$0	\$1,760	\$18,600
	Subtotal Task 3.9	\$1,160	\$4,680	\$8,720	\$2,280	\$0	\$1,760	\$18,600
	Total	\$2,900	\$30,160	\$28,560	\$22,040	\$1,120	\$1,760	\$86,540

Labor Cost for 4-Runway Analysis
C.E.R.M.

		C.E.R.M.								
Task #	Task Description	Director Principal	Advisor / Director	Consulting Engineer	Senior PM	Project Manager	Senior Engineer	Analyst / Technician	Computer Analyst	Staff Accountant
3.7	4-Runway Water Quality Analysis	\$150	\$140	\$135	\$130	\$120	\$110	\$70	\$65	\$65
	Subtotal Task 3.7	\$0	\$0	\$405	\$260	\$960	\$4,400	\$2,520	\$650	\$130
	Phase I EDDAs - 5th Runway Acq.	\$0	\$0	\$405	\$260	\$960	\$4,400	\$2,520	\$650	\$130
3.8	Areas	\$0	\$0	\$0	\$9,320	\$10,200	\$47,080	\$66,710	\$16,250	\$1,690
	Subtotal Task 3.8	\$0	\$0	\$0	\$9,320	\$10,200	\$47,080	\$66,710	\$16,250	\$1,690
	Total	\$0	\$0	\$405	\$9,580	\$11,160	\$51,480	\$69,230	\$16,900	\$1,820

12/8/00

Labor Cost for 4-Runway Analysis
C.E.R.M.

Task #	Task Description	Admin Asst.	Secretarial / Clerical	Total Labor (\$)
3.7	4-Runway Water Quality Analysis	\$45	\$35	\$80
	Subtotal Task 3.7	\$360	\$0	\$9,685
	Phase I EDDAs - 5th Runway Acq. Areas	\$360	\$0	\$9,685
3.8		\$18,000	\$8,750	\$177,000
	Subtotal Task 3.8	\$18,000	\$8,750	\$177,000
	Total	\$18,360	\$8,750	\$186,685

Labor Cost for 4-Runway Analysis
Kimley-Horn and Associates

Kimley-Horn and Associates, Inc.										
Task #	Task Description	Principal	Project Manager	Senior Prof. 2	Senior Prof. 1	Prof. 2	Deputy PM	Prof. 1 / Senior Tech.	CADD Operator	Senior Support Staff
3.1 Agencies										
3.1.1	Coordination - External	\$0	\$4,960	\$0	\$0	\$0	\$420	\$0	\$0	\$0
3.1.2	Coordination - Internal	\$0	\$3,720	\$0	\$0	\$0	\$1,050	\$800	\$0	\$0
	Subtotal Task 3.1	\$0	\$8,680	\$0	\$0	\$0	\$1,470	\$800	\$0	\$0
3.2 Air Quality										
3.2.1 Emissions Inventory Analysis										
3.2.1.1	Aircraft Emissions	\$0	\$0	\$0	\$120	\$110	\$0	\$0	\$0	\$0
3.2.1.2	Parking Lots and Roadway Emissions	\$160	\$0	\$0	\$240	\$220	\$0	\$0	\$0	\$0
3.2.1.3	Stationary Source Emissions	\$0	\$0	\$0	\$120	\$110	\$0	\$0	\$0	\$0
3.2.2 Dispersion Modeling Analysis										
3.2.2.1	Review/Process SIKMOD Results	\$0	\$310	\$0	\$120	\$110	\$420	\$0	\$0	\$0
3.2.2.2	Review/Process INM Fleet Mix	\$0	\$310	\$0	\$120	\$110	\$420	\$0	\$0	\$0
3.2.2.3	Refined Dispersion Analysis	\$0	\$310	\$0	\$120	\$110	\$420	\$0	\$0	\$0
3.2.3	Evaluation of Potential Cumulative Impacts	\$360	\$0	\$0	\$480	\$440	\$420	\$0	\$0	\$0
3.2.4	General Conformity Analysis	\$160	\$0	\$0	\$480	\$440	\$0	\$160	\$0	\$0
	Subtotal Task 3.2	\$720	\$930	\$0	\$7,800	\$7,650	\$1,680	\$160	\$0	\$0
3.3 Noise Modeling and Analysis										
3.3.1 Translate SIKMOD Output										
3.3.2	Develop INM Input for Two Cases	\$160	\$310	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.3.3	EPA 4-Runway Noise - Future Conditions	\$360	\$310	\$0	\$960	\$1,760	\$0	\$0	\$0	\$0
3.3.4	Future Grid Point Analysis	\$360	\$310	\$0	\$960	\$1,760	\$0	\$0	\$0	\$0
3.3.5	FICON Noise Analysis	\$360	\$310	\$0	\$960	\$1,760	\$0	\$320	\$0	\$0
	Subtotal Task 3.3	\$1,260	\$1,240	\$0	\$2,880	\$5,280	\$0	\$320	\$0	\$0
3.4 Evaluation of Noise Sensitive Sites and Compatible Land Uses										
3.4	Compatible Land Uses	\$0	\$310	\$0	\$0	\$0	\$420	\$640	\$300	\$0
	Subtotal Task 3.4	\$0	\$310	\$0	\$0	\$0	\$420	\$640	\$300	\$0
3.5 SIKMOD Simulation and Analysis										
3.5.1	Develop Contained Future Flight Schedules	\$360	\$0	\$0	\$0	\$0	\$210	\$0	\$0	\$0
3.5.2	Perform Simulation Analysis	\$360	\$0	\$0	\$0	\$0	\$210	\$0	\$0	\$0
3.5.3	Simulation Revisions of Base Case Alternative	\$360	\$0	\$0	\$0	\$0	\$210	\$0	\$0	\$0
	Subtotal Task 3.5	\$1,080	\$0	\$0	\$0	\$0	\$630	\$0	\$0	\$0
3.6 Transportation Planning										
3.6.1 Allocation of ARC Demand Model Traffic										
3.6.1	Volumes	\$0	\$0	\$0	\$480	\$2,200	\$420	\$320	\$0	\$0
3.6.2 Networks										
3.6.2	Develop Future no-Runway Build Roadway	\$0	\$0	\$0	\$480	\$2,200	\$0	\$0	\$0	\$0
3.6.3 CONSIM Models										
3.6.3	Develop Future no-Runway Build Roadway	\$720	\$0	\$0	\$960	\$4,400	\$840	\$640	\$0	\$0
	Subtotal Task 3.6	\$720	\$0	\$0	\$1,920	\$9,800	\$1,260	\$960	\$0	\$0
3.7 4-Runway Water Quality Analysis										
3.7	4-Runway Water Quality Analysis	\$0	\$1,240	\$3,360	\$0	\$0	\$1,260	\$0	\$0	\$0
	Subtotal Task 3.7	\$0	\$1,240	\$3,360	\$0	\$0	\$1,260	\$0	\$0	\$0
3.8 Phase I EDDAs - 5th Runway Acq. Areas										
3.8	Phase I EDDAs - 5th Runway Acq. Areas	\$0	\$1,550	\$1,400	\$0	\$0	\$1,255	\$0,400	\$0	\$0
	Subtotal Task 3.8	\$0	\$1,550	\$1,400	\$0	\$0	\$1,255	\$0,400	\$0	\$0
3.9 Documentation										
3.9	Documentation	\$0	\$7,750	\$0	\$0	\$440	\$5,000	\$800	\$0	\$0
	Subtotal Task 3.9	\$0	\$7,750	\$0	\$0	\$440	\$5,000	\$800	\$0	\$0
	Total	\$2,780	\$21,700	\$4,760	\$6,600	\$16,170	\$15,066	\$10,080	\$300	\$0

Labor Cost for 4-Runway Analysis
Kimley-Horn and Associates

Task #	Task Description	Support Staff	Total Labor (\$)
3.1 Coordination between Consultant and Agencies			
3.1.1	Continuation - External	\$0	\$5,380
3.1.2	Coordination - Internal	\$0	\$5,570
	Subtotal Task 3.1	\$0	\$10,950
3.2 Air Quality			
3.2.1	Emission Inventory Analysis		
3.2.1.1	Aircraft Emissions	\$0	\$230
3.2.1.2	Parking Lots and Roadway Emissions	\$0	\$640
3.2.1.3	Stationary Source Emissions	\$0	\$230
3.2.2	Dispersion Modeling Analysis		
3.2.2.1	Review/Process SIMMOD Results	\$0	\$960
3.2.2.2	Review/Process INRA Fleet Mix	\$0	\$960
3.2.2.3	Refined Dispersion Analysis	\$0	\$960
3.2.3	Evaluation of Potential Cumulative Impacts	\$0	\$1,700
3.2.4	General Conformity Analysis	\$0	\$1,280
	Subtotal Task 3.2	\$0	\$8,940
3.3 Noise Modeling and Analysis			
3.3.1	Translate SIMMOD Output	\$0	\$0
3.3.2	Develop INRA Input for Two Cases	\$0	\$490
3.3.3	EPA 4-Runway Noise - Future Conditions	\$0	\$3,390
3.3.4	Future Grid Point Analysis	\$0	\$3,390
3.3.5	FCOM Noise Analysis	\$0	\$3,710
	Subtotal Task 3.3	\$0	\$10,980
3.4 Evaluation of Noise Sensitive Sites and Compatible Land Uses			
		\$0	\$1,670
	Subtotal Task 3.4	\$0	\$1,670
3.5 SIMMOD Simulation and Analysis			
3.5.1	Develop Constrained Future Flight Schedules	\$0	\$570
3.5.2	Perform Simulation Analysis	\$0	\$570
3.5.3	Simulation Revisions of Basecase Alternative	\$0	\$570
	Subtotal Task 3.5	\$0	\$1,710
3.6 Transportation Planning			
Re-Allocation of ARC Demand Model Traffic			
3.6.1	Volumes	\$100	\$3,520
3.6.2 Networks			
Develop Future no-Runway Bukit Roadway			
		\$0	\$2,680
3.6.3 Run Regional Travel Demand Model and CORSIM Models			
		\$150	\$7,710
	Subtotal Task 3.6	\$250	\$13,910
3.7 4-Runway Winter Quality Analysis			
		\$0	\$5,800
	Subtotal Task 3.7	\$0	\$5,800
3.8 Phase I EDDAs - 5th Runway Acg. Areas			
		\$400	\$13,005
	Subtotal Task 3.8	\$400	\$13,005
3.9 Documentation			
		\$150	\$15,020
	Subtotal Task 3.9	\$150	\$15,020
	Total	\$800	\$100,045

Labor Cost for 4-Runway Analysis Summary

Task #	Task Description	Subconsultants			C.E.R.M.	Total-Subconsultants	Kimley-Horn	Grand Total
		Landrum & Brown	Wilbur Smith					
		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
3.1	Agencies							
3.1.1	Coordination - External	\$13,780	\$0	\$0	\$0	\$13,780	\$5,380	\$19,160
3.1.2	Coordination - Internal	\$28,705	\$0	\$0	\$0	\$28,705	\$5,570	\$34,275
	Subtotal Task 3.1	\$42,485	\$0	\$0	\$0	\$42,485	\$10,950	\$53,435
3.2	Air Quality							
3.2.1	Emission Inventory Analysis	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.2.1.1	Aircraft Emissions	\$8,210	\$0	\$0	\$0	\$8,210	\$230	\$8,440
3.2.1.2	Parking Lots and Roadway Emissions	\$8,505	\$0	\$0	\$0	\$8,505	\$840	\$9,345
3.2.1.3	Stationary Source Emissions	\$8,045	\$0	\$0	\$0	\$8,045	\$230	\$8,275
3.2.2	Dispersion Modeling Analysis							
3.2.2.1	Review/Process SIMMOD Results	\$6,190	\$0	\$0	\$0	\$6,190	\$960	\$7,150
3.2.2.2	Review/Process INM Fleet Mix	\$12,990	\$0	\$0	\$0	\$12,990	\$950	\$13,940
3.2.2.3	Refined Dispersion Analysis	\$19,040	\$0	\$0	\$0	\$19,040	\$960	\$20,000
3.2.3	Evaluation of Potential Cumulative Impacts	\$6,790	\$0	\$0	\$0	\$6,790	\$1,700	\$8,490
3.2.4	General Conformity Analysis	\$10,620	\$0	\$0	\$0	\$10,620	\$1,260	\$11,880
	Subtotal Task 3.2	\$60,390	\$0	\$0	\$0	\$60,390	\$6,940	\$67,330
3.3	Noise Modeling and Analysis							
3.3.1	Translate SIMMOD Output	\$8,240	\$0	\$0	\$0	\$8,240	\$0	\$8,240
3.3.2	Develop INM Input for Two Cases	\$12,525	\$0	\$0	\$0	\$12,525	\$490	\$13,015
3.3.3	EPA 4-Runway Noise - Future Conditions	\$7,425	\$0	\$0	\$0	\$7,425	\$3,390	\$10,815
3.3.4	Future Grid Point Analysis	\$4,320	\$0	\$0	\$0	\$4,320	\$3,390	\$7,710
3.3.5	FICOM Noise Analysis	\$10,355	\$0	\$0	\$0	\$10,355	\$3,710	\$14,065
	Subtotal Task 3.3	\$42,865	\$0	\$0	\$0	\$42,865	\$10,980	\$53,845
3.4	Evaluation of Noise Sensitive Sites and Compatible Land Uses	\$0	\$0	\$0	\$0	\$0	\$1,670	\$1,670
	Subtotal Task 3.4	\$0	\$0	\$0	\$0	\$0	\$1,670	\$1,670
3.5	SIMMOD Simulation and Analysis							
3.5.1	Develop Constrained Future Flight Schedules	\$16,400	\$0	\$0	\$0	\$16,400	\$570	\$16,970
3.5.2	Perform Simulation Analysis	\$20,260	\$0	\$0	\$0	\$20,260	\$570	\$20,830
3.5.3	Simulation Revisions of Baseline Alternative	\$31,450	\$0	\$0	\$0	\$31,450	\$570	\$32,020
	Subtotal Task 3.5	\$68,110	\$0	\$0	\$0	\$68,110	\$1,710	\$69,820
3.6	Transportation Planning							
	Re-Allocation of ARC Demand Model Traffic	\$0	\$14,360	\$0	\$0	\$14,360	\$3,520	\$17,880
3.6.1	Volumes	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.6.2	Develop Future no-Runway Build Roadway Networks	\$0	\$20,100	\$0	\$0	\$20,100	\$2,680	\$22,780
3.6.3	Run Regional Travel Demand Model and CORSIM Models	\$0	\$35,480	\$0	\$0	\$35,480	\$7,710	\$43,190
	Subtotal Task 3.6	\$0	\$69,940	\$0	\$0	\$69,940	\$13,910	\$83,850
3.7	4-Runway Water Quality Analysis	\$0	\$0	\$9,685	\$0	\$9,685	\$5,860	\$15,545
	Subtotal Task 3.7	\$0	\$0	\$9,685	\$0	\$9,685	\$5,860	\$15,545
3.8	Phase I EDNA - 5th Runway Acq. Areas	\$0	\$0	\$177,000	\$0	\$177,000	\$13,005	\$190,005
	Subtotal Task 3.8	\$0	\$0	\$177,000	\$0	\$177,000	\$13,005	\$190,005
3.9	Documentation	\$51,560	\$16,000	\$0	\$0	\$67,560	\$15,070	\$82,630
	Subtotal Task 3.9	\$51,560	\$16,000	\$0	\$0	\$67,560	\$15,070	\$82,630
	Total	\$215,410	\$88,540	\$180,605	\$0	\$558,635	\$80,045	\$630,680

Expenses for 4-Runway Analysis
Landrum and Brown

Expenses for 4-Runway Analysis
Landrum and Brown

Task No.	Task Description	Expense Description	Quantity	Cost	Unit	Total Cost
3.1.1	Coordination - External	Airfare	8	\$1,000	/trip	\$8,000
		Hotel	3	\$100	/night	\$300
		Meals	8	\$45	/day	\$360
				Subtotal, Task A.1	Total	\$8,660

Expenses for 4-Runway Analysis
Kimley-Horn and Associates

Task No.	Task Description	Expense Description	Quantity	Cost	Unit	Total Cost
3.1.1	Coordination - External	Airfare	3	\$1,057	/trip	\$3,171
		Hotel	6	\$100	/night	\$600
		Meals	6	\$35	/day	\$210
3.9	Documentation	DEIS Printing*	150		Task 3.1.1 Subtotal	\$3,981
		DEIS Executive Summary*	300	150	/copy	\$22,500
		PFEIS*	20	10	/copy	\$3,000
		FEIS*	150	150	/copy	\$3,000
		FEIS Executive Summary*	300	150	/copy	\$22,500
		Graphics for Public Hearing	50	100	/board	\$5,000
				Task 3.9 Subtotal		\$59,000
				Total		\$62,981

*Additional cost per copy beyond approved budget.

Expenses for 4-Runway Analysis
C.E.R.M.

Task No.	Task Description	Expense Description	Quantity	Cost	Unit	Total Cost
3.7	4-Runway Water Quality Analysis	Computer Usage	20	\$7.50/hour		\$150
					Task 3.7 Subtotal	\$150
					Total	\$150

Expenses for 4-Runway Analysis
Summary

Task No.	Task Description	Landrum & Brown	Wilbur Smith Associates	C.E.R.M.	Subconsultant Total	Kimley-Horn	Grand Total
	Coordination between Consultant and Agencies						
3.1							
3.1.1	Coordination - External	\$8,650	\$0	\$0	\$8,650	\$0	\$8,650
3.1.2	Coordination - Internal	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.1	\$8,650	\$0	\$0	\$8,650	\$0	\$8,650
3.2	Air Quality						
3.2.1	Emission Inventory Analysis	\$0	\$0	\$0	\$0	\$0	\$0
3.2.1.1	Aircraft Emissions	\$0	\$0	\$0	\$0	\$0	\$0
3.2.1.2	Parking Lots and Roadway Emissions	\$0	\$0	\$0	\$0	\$0	\$0
3.2.1.3	Stationary Source Emissions	\$0	\$0	\$0	\$0	\$0	\$0
3.2.2	Dispersion Modeling Analysis						
3.2.2.1	Review/Process SIMMOD Results	\$0	\$0	\$0	\$0	\$0	\$0
3.2.2.2	Review/Process INM Flee Mix	\$0	\$0	\$0	\$0	\$0	\$0
3.2.2.3	Refined Dispersion Analysis	\$0	\$0	\$0	\$0	\$0	\$0
3.2.3	Evaluation of Potential Cumulative Impacts	\$0	\$0	\$0	\$0	\$0	\$0
3.2.4	General Conformity Analysis	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.2	\$0	\$0	\$0	\$0	\$0	\$0
3.3	Noise Modeling and Analysis						
3.3.1	Develop INM Input for Two Cases	\$0	\$0	\$0	\$0	\$0	\$0
3.3.2	EPA 4-Runway Noise - Future Conditions	\$0	\$0	\$0	\$0	\$0	\$0
3.3.3	Future Grid Point Analysis	\$0	\$0	\$0	\$0	\$0	\$0
3.3.4	FICON Noise Analysis	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.3	\$0	\$0	\$0	\$0	\$0	\$0
3.4	Evaluation of Noise Sensitive Sites and Compatible Land Uses						
		\$0	\$0	\$0	\$0	\$0	\$0
		\$0	\$0	\$0	\$0	\$0	\$0
3.5	SIMMOD Simulation and Analysis						
3.5.1	Develop Constrained Future Flight Schedules	\$0	\$0	\$0	\$0	\$0	\$0
3.5.2	Perform Simulation Analysis	\$0	\$0	\$0	\$0	\$0	\$0
3.5.3	Simulation Revisions of Baseline Alternative	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.5	\$0	\$0	\$0	\$0	\$0	\$0
3.6	Transportation Planning						
	Re-Allocation of ARC Demand Model Traffic						
3.6.1	Volumes	\$0	\$0	\$0	\$0	\$0	\$0
3.6.2	Develop Future no-Runway Build Roadway Networks	\$0	\$0	\$0	\$0	\$0	\$0
3.6.3	CORSIM Models	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.6	\$0	\$0	\$0	\$0	\$0	\$0
3.7	4-Runway Water Quality Analysis						
		\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.7	\$0	\$0	\$0	\$0	\$0	\$0
3.8	Phase I EDDAs - 3rd Runway Acq. Areas						
		\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.8	\$0	\$0	\$0	\$0	\$0	\$0
3.9	Documentation						
		\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Task 3.9	\$0	\$0	\$0	\$0	\$0	\$0
	Total	\$8,650	\$0	\$150	\$8,810	\$62,981	\$76,772

Overall Cost for a Runway Analysis Labor and Expense Summary

[illegible]

Tucson

Number of Pools - 2

Pool Types

- 1) Lap Pool
- 2) Spray Pool

Pool Data

1) Lap Pool

Pool Size\Ft. - 61 x 33
Slope\Ft. - 3 to 9.5
Perimeter\LF - 188
Surface Area\Sq. Ft. - N/A
Volume\Gallons - N/A

2) Spray Pool

Pool Size\Ft. - 15 x 15
Slope\Ft. - 1 ft. flat
Perimeter\LF - 60
Surface Area\Sq. Ft. - 285
Volume\Gallons - N/A

Health Department Concerns

Lap Pool -

- * Remove fill spout and deck valve box and install new remote fill valve
- * Install drain to waste line on the main drain plumbing line

City of Atlanta Concerns

Lap Pool -

- * Caulking is deteriorated on backside of brick coping
- * Pool gutter system drains to waste

Health Department Concerns

Spray Pool -

- * Depth and No Diving markers need to be repainted on pool deck

Scope of Work

Run new fill line from the street into the mechanical room. Fill line should be 2" copper. Terminate with an approved backflow preventer and 2" gate valve. Demo and repair concrete deck, as required, to route the new fill line to the pool mechanical room.

Existing main drain line does not include a drain to waste line. Remove a substantial portion of the pool deck adjacent to the deep end of the pool and excavate down to locate the existing main drain piping. This area will also be used for the construction of the new surge tank.

A creek is adjacent to the property (approximately 40 ft. from the pool edge). The gutter system currently drains to this creek. The new drain to waste line should also drain to this creek.

During excavation, locate the gutter drain line and route it into the new surge tank. Main drain line should be Teed with one leg going into the surge tank and the other leg (with valve) into the creek.

Construct a 6 x 6 x 10 ft. deep surge tank with minimum 1' thick concrete walls, #4 rebar at 12" on center and a properly designed structural suspended slab with minimum 3' square access hatch with vandal-proof cover. The main drain line should be outfitted with a submersion-rated butterfly valve with stem extender and Tee handle.

A minimum 6" modulating float valve shall also be installed on the drain line inside the surge tank. The drain to waste valve shall be located outside the surge tank and shall include a butterfly valve, suitable for buried application, with stem extender and Tee handle.

Coat the inside of the surge tank with a minimum of two coats of Tnemec Series 66 white epoxy.

Remove existing caulk between the brick coping and pool deck and recaulk. (See Construction Note 15.)

On the kiddie pool deck area, spray paint (using the properly sized stencil) the words "No Diving" and "1 Ft" at two locations (one on either facing side) at the pool deck.

ANDERSON PARK SWIMMING POOL

Anderson

Number of Pools - 1

Pool Types

1) Geometric lap pool

Pool Data

1) Lap Pool

Pool Size\Ft. - Approx. 79 x 85

Slope\Ft. - 2 to 12

Perimeter\LF - 367

Surface Area\Sq. Ft. - N/A

Volume\Gallons - N/A

Health Department Concerns

Lap Pool -

- * Install remote fill valve
- * Repair pool deck

Scope of Work

Remove existing fill spout and deck box and fill void with concrete. Install new valve and fill line in the mechanical room. (See Construction Note 6.)

Remove all caulk at pool perimeter and replace with new caulking. (See Construction Note 15.)

Remove all deck caulk (approximately 1,000 lin. ft.) at expansion joints and replace with new material. (See Construction Note 15.)

PIEDMONT PARK SWIMMING POOL

Piedmont

Number of Pools - 3

Pool Types

- 1) Diving Well
- 2) Geometric Lap Pool
- 3) Spray Pool

Pool Data

1) Diving Well

Pool Size\Ft. - 34 x 39
Slope\Ft. - 12-1/2 Ft. Flat
Perimeter\LF - 146
Surface Area\Sq. Ft. - 3,078
Volume\Gallons - 124,312

2) Lap Pool

Pool Size\Ft. - Approx. 95 x 87 geometric shape
Slope\Ft. - 3.5 to 5
Perimeter\LF - 404
Surface Area\Sq. Ft. - 9,952
Volume\Gallons - 286,380

3) Spray Pool

Pool Size\Ft. - Approx. 43 x 45 geometric shape
Slope\Ft. - 1-1/2 to 2-1/2
Perimeter\LF - 165
Surface Area\Sq. Ft. - Approx. 2,100
Volume\Gallons - N\A

Health Department Concerns

Diving Well -

- * Pool has serious water leaks
- * Pool has been closed by Health Department Order
- * Pool to be totally renovated or removed
- * Remove phone from pool deck area

City of Atlanta Concerns

Diving Well -

- * Pool usage (prior to closing) was minimal
- * Pool renovations would be extremely costly and hard to justify
- * The area may be better served if the pool were filled in and an elevated sun deck created.

Health Department Concerns

Lap Pool -

- * Remove fill spout and install remote fill valve
- * Resurface pool
- * Provide tile depth and No Diving markers

City of Atlanta Concerns

Lap Pool -

- * Guard chairs have deteriorated and are unsafe
- * Pool has substantial cracks that should be repaired
- * Perimeter coping expansion joint has been filled with concrete in several locations
- * Expansion joints on pool floor (5 locations) have deteriorated and need to be rebuilt
- * Tunnel has a substantial amount of water flowing from the lap pool
- * Major electrical problems may require replacement of panels, circuit breakers, switches, etc.

Health Department Concerns

Spray Pool -

- * Entrance steps\ramp too slippery

City of Atlanta Concerns

Spray Pool -

- * Lifeguard chair no longer needed and has deteriorated
- * Major deck repair required at spray pool entrance area
- * Leave as spray pool, will not be filled or recirculated
- * Metal valve box cover is slippery when wet
- * Caulk has deteriorated on pool deck

Scope of Work

Based on the deterioration of the pool, the condemnation of the Health Department and the lack of usage by the public, we recommend that the diving well be filled with gravel and closed.

Saw cut and remove upper 6" of pool gutter around the perimeter of the diving well. Drill into the existing deck on 18" intervals to accept a #4 rebar. Rebar should be embedded minimum of 4". Each rebar shall be a minimum of 18" in length.

After the pool has been filled, pour a 6" thick concrete slab to cover the entire diving well area. New concrete should encapsulate the new rebar. An expansion joint should be installed (minimum 1/2" thickness) around the new deck perimeter. The new deck shall be flush with the existing deck. Caulk the expansion joint. (See Construction Note 15.)

Abandon all mechanical and filter equipment and decommission electrical service to pool pump.

Remove all phones from pool deck and relocate as required to meet the current code.

Remove deck-mounted fill spout and install new remote fill valve. (See Construction Note 6.)

Sand blast and replaster the lap pool. (See Construction

Note 4.) Use caution to not destroy or damage any underwater tile, gutter tile, underwater fittings and related.

Provide new depth and No Diving markers on the pool deck and glazed depth markers on the gutter face. (See Construction Note 11.)

Remove all guard chairs and replace with new pedestal mounted guard chairs similar to the Paragon club chair. Use stainless steel fasteners and install per manufacturer's recommendations.

Prior to the replastering operation, saw cut all cracks in the pool bottom and caulk with an underwater-rated caulk. (See Construction Note 8.) Allow the caulk to cure before plastering. Sound out pool bottom to identify loose and delaminated plaster. Test drill in 3 to 4 locations, on the pool bottom, and determine if the sub-surface is properly compacted. The large number of cracks in the pool, coupled with the numerous expansion joints, suggest that sub-surface load-bearing capacity has been compromised.

Rebuild all expansion joints on pool floor. (See Construction Note 16.)

The perimeter coping joint, in many locations, has been filled with concrete. Saw cut the entire perimeter to match the existing\previous joint width and remove all concrete, debris and caulk. Install the properly sized backer rod and recaulk. (See Construction Note 15.)

Determine the source of the leak from the lap pool into the perimeter tunnel. It appears that the substantial cracks in the pool floor are allowing water to seep into the tunnel. If additional remedial work is required, please notify the City Parks Department.

Test all electrical switches, circuit breakers and devices in the mechanical room and replace, as required. It appears that corrosion has severely deteriorated this electrical system and that all internal components should be replaced. Sand and repaint electrical panel. Relabel as required.

Repaint the spray pool with two additional coats of chlorinated, rubber-based paint. Add a substantial amount of non-skid additive to the paint.

Remove the lifeguard chair from the deck and patch the concrete.

Apply a coat of white epoxy paint to the metal valve box

cover and add some non-slip additive to the new material. Lightly sand the valve box prior to recoating.

Remove a 1,200 sq. ft. area of the pool deck adjacent to the entrance from the lap pool and repour with new concrete. (See Construction Note 10.)

Recaulk spray pool deck joints as required.

**THOMASVILLE PARK
SWIMMING POOL**

Thomasville

Number of Pools - 1

Pool Types

1) Lap Pool

Pool Data

1) Lap Pool

Pool Size\Ft. - Z Shaped 42 x 85 Lap with 26 x 20 shallow end and 35 x 38 deep end

Slope\Ft. - 2 to 12

Perimeter\LF - 365

Surface Area\Sq. Ft. - 5,433

Volume\Gallons - N\A

Health Department Concerns

Lap Pool -

- * Repair delaminated concrete deck
- * Replaster pool

City of Atlanta Concerns

- * Leak in surge tank loses considerable water
- * Stainless steel gutter needs to be cleaned and polished
- * Recaulk deteriorated deck expansion joints

Scope of Work

Two large patches (each about 300 sq. ft.) need to be repaired on the pool deck. Additionally, a small area near the deck drains requires some work. The existing concrete has spawled and delaminated. This concrete needs to be removed and replaced. (See Construction Note 10.)

The entire pool surface needs to be sandblasted and replastered. No cracks or repair work were visible. (See Construction Note 4.)

The surge tank had a substantial leak in the corner closest to the waste manhole. The surge tank needs to be drained and cleaned with acid. Following the cleaning, visually inspect the entire surface for cracks or gaps. Seal all pipe penetrations with a suitable epoxy compound rated for submersion. Saw cut and caulk all cracks. (See Construction Note 8.) Coat the entire surge tank with two coats of Tnemec Series 66 epoxy.

The stainless steel gutter system needs to be cleaned and repassivated. The gutter cleaning will include hand rubbing the entire gutter with a mildly abrasive Scotch Brite pad. Note: All cleaning should be done in a single straight direction (with grain) not a swirling motion.

Following the Scotch Brite cleaning, bath the stainless in a mild solution of nitric acid and rinse thoroughly.

Remove all existing deck caulk and install new caulking at all deck expansion joints. (See Construction Note 15.)

MADDOX PARK SWIMMING POOL

TRANSMITTAL FORM FOR LEGISLATION

Commissioner's Signature _____

Director's Signature _____

Originating Department DOA Purchasing

Contact (name) Felicia Strong-Whitaker

Committee(s) of Purview TRANS COMMITTEE

Council Deadline 02/29/01

Committee Meeting Date(s) 02/13/01

Full Council Date 02/19/01

BACKGROUND:

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE AMENDMENT #1 FC-7041-98, ENVIRONMENTAL IMPACT STATEMENT (EIS) WITH KIMLEY-HORN AND ASSOCIATES, INC. FOR THE DEPARTMENT OF AVIATION AT HARTSFIELD ATLANTA INTERNATIONAL AIRPORT. TO EXTEND THE CONTRACT TERM AND ADD ADDITIONAL FUNDING IN AN AMOUNT OF TWO MILLION TWO HUNDRED FIFTY THOUSAND DOLLARS, AND SHALL BE CHARGED TO AND PAID FROM FUND, ACCOUNT AND CENTER NUMBER: 2H21 524001 R21001.

FINANCIAL IMPACT (if any): _____

Mayor's Staff Only

Received by Mayor's Office: _____

(date)

Reviewed by: _____

(initials)

(date)

Submitted to Council: _____

(date)

Action by Committee: Approved _____ Adversed _____ Held _____ Amended _____

Substitute _____ Referred _____ Other _____